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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,645	05/01/2001	Charles L. Asbury	UW - Asbury	6607

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EXAMINER

VANORE, DAVID A

ART UNIT PAPER NUMBER

2881

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/847,645

Applicant(s)

ASBURY ET AL.

Examiner

David A Vanore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 28 July 2003.
- 2a)  This action is FINAL.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-18 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-18 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 01 May 2001 is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All b)  Some \* c)  None of:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a)  The translation of the foreign language provisional application has been received.
- 15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 6, 10, 11, 12, 13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howie et al.

Howie et al. teaches a device for sample analysis comprising a polarized radiation source (2), a flow chamber (15), and a plurality of signal detectors (4, 17) arranged at a desired angle around the flow chamber (Note Fig. 3) as recited in claims 1, 6, 11, 12, and 13.

Given that Howie et al. teaches the placement of detectors to "surround the cell" (Col. 6 Lines 29-65), the detection apparatus of Howie et al. teaches that detectors may be placed at any orientation to the polarized radiation source and flow chamber including at 54.7 degrees from the direction of polarization or 35.3 degrees from the direction of polarization as recited in claims 5, 10, 11, 12, and 18.

It would have been obvious to one having ordinary skill in the art to select the optimum value of the position of the detectors because one of ordinary skill in the art would select the position of the detectors for the analysis of a desired scattered radiation.

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Claims 2-4, 7-9, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howie et al. in view of Batchelder et al.

Howie et al. teaches all limitations as applied above, but does not teach the rearranging of the detector, flow cell, and light source such that the sample flow is orthogonal to a detector or radiation source, and that is parallel to a direction of polarization of the incident radiation.

Batchelder et al. teaches a flow cytometer comprising a polarized radiation source (10), a flow capillary (28), and detectors (52 and 54) where the direction of polarization is selectable to include being parallel to the flow trajectory, and the sample stream is orthogonal to the radiation source and detection means.

Batchelder et al. modifies the device of Howie et al. to produce a flow cytometer with selectable polarization states of incident radiation and a plurality of detection means to receive scattered radiation at a selected angle where the flow cell, radiation source and detection means are arranged as described above.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Howie et al. with the device of Batchelder et al. because one of ordinary skill would have arranged the components of Howie et al. to achieve the optimum detection conditions. One of ordinary skill in the art would have known to select the polarization state relative to the direction of sample flow and arranged the detectors accordingly because Batchelder teaches this arrangement.

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***R sponse to Arguments***

Applicant's arguments filed July 28, 2003 have been fully considered but they are not persuasive.

Applicant argues that the amendment to the independent claims of the selective detection being independent of the anistotropic radiation is an effect of the detection angle. As pointed out in the arguments, this effect requires that a 90 degree angle be present between the incident radiation and the detection angle. Since Howie et al. obviousle teaches a 90 degree angle between a source and at least one detector in Fig. 1, this effect is achieved.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Vanore whose telephone number is 703-306-0246. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Lee can be reached on 703-308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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dav

August 12, 2003



BRUCE ANDERSON  
PRIMARY EXAMINER